

Claims

- [c1] 1. A method of optimizing arrangement of a light source array, suitable for use in an optical scan module that comprises a sub-system and a light source array, wherein an optical response matrix of the optical scan module is equal to an optical response matrix of the sub-system multiplied by an optical response matrix of the light source array, the method comprising:
- fixing an optical response of the sub-system to obtain measured values of the optical response matrices of the optical scan module and the light source array;
- dividing the measured value of the optical response matrix of the optical scan module by the measured value of the optical response matrix of the light source array to obtain a fixed value of the optical response of the sub-system;
- configuring an optimized value of the optical response matrix of the optical scan module and dividing the optimized value by an actual value of the optical response matrix of the sub-system to obtain an optimized value of the optical scan matrix of the light source array; and
- responding with the optimized value of the optical response matrix of the light source array to optimize an

arrangement of the light source array.

- [c2] 2. The method according to claim 1, wherein the light source array includes a plurality of point sources.
- [c3] 3. The method according to claim 2, wherein the light source array includes a plurality of light emitting diodes.
- [c4] 4. The method according to claim 2, wherein colors of the point light sources include red, green and blue.
- [c5] 5. The method according to claim 1, wherein the sub-system includes a reflector used to align light emitted from the light source array radiating in the same direction.
- [c6] 6. The method according to claim 1, wherein the sub-system includes a mirror to reflect light emitted from the light source array.
- [c7] 7. The method according to claim 1, wherein the sub-system includes a lens to refract light emitted from the light source array.
- [c8] 8. The method according to claim 1, wherein the sub-system includes a sensor to receive light emitted from the light source array.